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TWENTY YEARS

WITH THE

NEW HAMPSHIRE

BOARD OF AGRICULTURE

AN HISTORICAL ADDRESS

AT A MEETING OF THE BOARD, IN CULVER HALL,
AT HANOVER, JAN. 1, 1890.

BY JOSEPH B. WALKER.

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TWENTY YEARS

WITH THE

NEW HAMPSHIRE BOARD OF AGRICULTURE.

Times followed one another. Came a morn
I stood upon the brink of twenty years,
And looked before and after.
— *Mrs. Browning's Aurora Leigh, 2d Book.*

The New Hampshire Board of Agriculture has nearly rounded out a full period of twenty years.* I have been requested to chronicle, briefly and as best I can, the leading events of those years. Although never a member of the Board, I have, as an humble layman of the agricultural interest, been conversant with its work. It is less, therefore, from a lack of knowledge of its operations than from a conscious want of ability to recount them adequately, that I enter upon the duty assigned me.

THE FIRST BOARD.

New Hampshire has had two boards of agriculture. The first was established by an act of the legislature approved December 19, 1820. It consisted of the president and one delegate from each county agricultural society.† The original members were Nathaniel Gilman, Exeter; Charles Barrett, New Ipswich; Samuel Dinsmore, Keene; Jeduthun Wilcox, Orford; Adino N. Brackett, Lancaster; Matthew Harvey, Hopkinton; Samuel

* The Board was organized August 23, 1870.

† Six agricultural societies had been organized before this: The Rockingham, chartered in 1814; the Cheshire, in 1816; the Strafford, in 1818; the Hillsborough, in 1818; the Grafton, in 1818; the Coös, in 1819.

Grant, Walpole; Amos Kent, Chester; Humphrey Moore, Milford; Moses White, Lancaster; William Badger, Gilmanton; and one other from Strafford county whose name I have been unable to obtain.

The Board was organized at Concord on the 19th day of June, 1821, by the choice of the following officers, viz.: Hon. William Badger, president; Hon. Matthew Harvey, secretary; Hon. Samuel Grant, treasurer; Hon. Amos Kent, Rev. Humphrey Moore, and Hon. Samuel Grant, committee of publication.

It was made the duty of this Board to annually publish in pamphlet form, for free distribution among the farmers of the State, such reports and returns to the county societies, together with such agricultural papers and essays favorable to the advancement of agriculture as the Board deemed advisable.

The next year, June 27, 1821, the act of incorporation was so amended as to reduce the membership of the Board from twelve to six, one of whom should be annually elected by each county society, and to require their several secretaries to transmit to the board all communications made to them relative to crops upon which premiums had been awarded.

The same year, the sum of eight hundred dollars was appropriated by the legislature for the promotion of "agriculture and domestic manufactures in the State." Of this, one hundred dollars was to be paid to each of the agricultural societies of Rockingham, Strafford, Hillsborough, Cheshire, and Grafton counties, and fifty dollars to that of the county of Coös; upon their affording satisfactory evidence to the state treasurer that they had severally raised, for the same purpose, sums double these amounts. The balance of this appropriation, two hundred and fifty dollars, was to be paid to the Board of Agriculture for the distribution of agricultural information, as above stated. This appropriation was reduced the next year, and not long afterwards discontinued altogether.

At the meeting of the Board before mentioned, the secretary was requested to prepare a circular to be addressed to the several county societies, "soliciting any information in their possession relative to improvements in agriculture, for the use of the committee of publication," and a committee was appointed to propose questions to the several county societies on the general

state of agriculture, stocks, crops, and manner of culture. Such information received, in response to this request, as was deemed important, was to be published in the pamphlet before mentioned. Members of the Board, and others interested in agriculture and domestic manufactures, were at the same time invited to furnish original articles for the same purpose.

Thus was started upon its career our first Board of Agriculture. It issued its first and only publication in 1822, — a well printed 8vo brochure of one hundred and thirty-five pages, neatly bound in double paper covers of white within and blue without, backed with white. How many copies of it were circulated does not appear. It has already become a very rare work, and but for the New Hampshire Historical Society might have perished altogether. The following is a transcript of its title page:

No. 1. The New Hampshire Agricultural Repository, Published by the State Board of Agriculture, under the patronage of the Legislature of the State of New Hampshire. Concord: Printed by Hill and Moore, 1822.

This tasty pamphlet contains six well written papers besides a preface, copies of the acts of incorporation of the Board, and the record of its organization:

I. Preface . . . . . page 3
II. Acts instituting the Board of Agriculture . . 7
III. Organization of the Board . . . . .
IV. Introductory Essay on the rise and progress of Agriculture, and its importance to mankind . . 13
V. Essay on Manure 67
VI. On Rotation of Crops 85
VII. On the Culture of Wheat 97
VIII. On the Culture of Indian Corn 109
IX. On the Culture of English Turnips . . . 117
X. An Address delivered before the Hillsborough Society for the promotion of Agriculture and Domestic Manufactures, Oct. 17, 1821 — By Rev. Humphrey Moore.

According to the preface, these essays and the address were all original articles contributed by two members only of the Board,

of whom the Rev. Humphrey Moore was one. Who was the other tradition does not say.*

Soon after its publication, this pamphlet was reviewed in Farmer and Moore's Historical Collections, at considerable length and with some severity.† The general plan and style of this "repository," or report, as we should now designate it, were evidently suggested by similar publications of the Massachusetts Agricultural Society, the first of which appeared in 1801.‡ The general scope of the Board itself was also suggested from without.

As before stated, this was the first and only report of our first Board of Agriculture. Its members seem to have been unable or unwilling to discharge the duties assigned them. No report appearing in 1823, and none in 1824, the standing committee of the House of Representatives on agriculture and manufactures, who had been instructed to investigate the affairs of the Board, made a report that in their opinion "It is not for the interest of agriculture or of the State to longer continue in force the laws making provision for the establishment of a Board of Agriculture, and [they] therefore recommend the passage of accompanying bill repealing the same." The recommendation of the committee was adopted, and after a brief career of about four years the Board ceased to exist.

The question naturally arises, Why was its career so brief? The reason is readily apparent to any one conversant with the social and agricultural condition of the farmers of New Hampshire seventy years ago. This Board rested upon no *raison d' etre*. It was "born out of due time," and came upon the arena of action fifty years too soon. It was not yet wanted.

Let me recall to your recollection some of the conditions surrounding the farmers of that time:

* The writer of the preface says, "But two only of the whole consented to take pen and engage in this undertaking."

† Vol. 2, pp. 249–253.

‡ "Papers on Agriculture, consisting of communications made to the Massachusetts Agricultural Society, with extracts from various publications; by the Trustees of the Society. Boston: Printed by Young and Minns, Printers to the State. 1801." Two volumes of these "Papers" in my possession afford evidence that they were issued in annual installments to a date as late as 1810. The first was preceded, in 1800, by a long list of "Agricultural Inquiries" upon the principal branches of farming.

1. There was not then much agricultural literature in this country, and very little within the reach of the average New Hampshire farmer. Some of the old Greek and Roman treatises upon the subject might, perhaps, have been upon the shelves of some of the town libraries * then flourishing in all parts of the State, such as Hesiod's "Works and Days," the oldest work on husbandry now extant if we except those portions of the Holy Scriptures which make mention of it; the Œconomics of Zenophon, written some six hundred years later, in which he discourses of households and estates; the domestic duties of husband and wife; the qualities of a good overseer, which we of to-day often most fully appreciate by their absence; the natures of different soils, and the best methods of their culture; of sowing, reaping, threshing, and winnowing grain; the planting of trees and vines; the causes of agricultural failures, and the best management of farm labor. Also, possibly one could have found there the "De Re Rustica" of Palladius, which was much read during the middle ages, and the agricultural writings of Cato the censor, distinguished as a general, an advocate, and a magistrate, who retired to a Sabine farm at the end of the second Punic war, and there lived in great simplicity. Into some of them might possibly have strayed some of the works of Varro,† (B. C. 116), the friend of Cicero, who wrote upon farming; and of Columella, who came upon the stage more than a century later; and of Pliny, who flourished later still, and who wrote a treatise on gardening, in verse.

To these names should be added, of course, that of Virgil, whose "Georgics" written in verse at the command of Augustus, to arrest the decline of Roman agriculture, have delighted hundreds of every generation which has succeeded his own.

Possibly there might have been found in some of these town libraries an occasional copy of quaint old Thomas Tusser's "Five Hundred Points of Good Husbandry," written in doggerel so very mean as to be captivatingly interesting, and whose homely diction brings his sensible precepts within the easy com-

* One hundred and sixty-one of these town or "social" libraries, as they were commonly called, had been chartered in New Hampshire previous to 1821. The whole number of towns in the State at that time was two hundred and thirty-one.

† Two only of his works have come down to us, his "De Re Rustica" and his "De Lingua Latina."

prehension of the simplest understanding. Beside * it, perhaps, might have stood Jethro Tull's "Horse-Hoeing Husbandry," in which he claimed that soil pulverization was a substitute for fertilization, and rendered the latter unnecessary. And next to this may also have stood some of the works of Arthur Young, who was born the year that Tull died; a very voluminous writer, full of unrest, pushing, and of much merit. He was a practical farmer, and like some others of a century later, who talk and write more or less upon agriculture, he farmed at a loss. The only salvation from bankruptcy to such persons, is enthusiasm and adroitness in the use of figures. Young wrote "Letters to Farmers," "The Farmer's Calendar," and the "Annals of English Agriculture," extended finally to forty-five volumes. But I do not think one could have found in New Hampshire, in 1821, any of Sir John Sinclair's works, some of which were upon agriculture and of value in their day. He had an inordinate desire for fame, and an acquaintance with hundreds of the famous men and women of his time. Among his American correspondents were Franklin, John Adams, Washington, Jefferson, Monroe, and Madison.† About the first really scientific work on agriculture written in English, was that which embodied the lectures of Sir Humphrey Davy on agricultural chemistry, delivered before the members of the Royal Institution of London, founded about 1800 by our countryman, Count Rumford. These were first published in 1812, and stray copies probably found their way to this country.

American agricultural literature was at this time very meager, and consisted largely of crude experiences and dogmatic rules of thumb. Dudley Leavitt's Almanac was in hundreds of farmers' kitchens, generally suspended from a nail by a string through its upper left hand corner. It taught, both by precept and by those matchless wood cuts still in use, the methods and seasons of the farm's varying work. From 1801 onward to 1811, and perhaps

* This work was first published in 1557, and acquired a popularity which it long held. Between the date of its first issue and 1744, a period when the readers of English books were comparatively few, it was issued in no less than twenty editions. I think it has not been reprinted in this country, and is now a rare book. It gives to its readers an admirable picture of English farm life in Tusser's day.

† An exceedingly entertaining book for the perusal of a farmer on a rainy day, is the correspondence of Sir John Sinclair, Bart., published in London by Henry Colburn and Richard Bentley, in 1831.

later, the Massachusetts Agricultural Society published annually a pamphlet of original and selected articles on practical agriculture, of most value now as showing the condition of New England farming at the time of their publication.* Some of these were doubtless read in New Hampshire.

The newspapers of the State contained more or less agricultural articles, but there was no one devoted exclusively to farming until Isaac Hill established and edited "The Farmer's Monthly Visitor," a quarto of sixteen pages, the first number of which appeared in 1839, and the last in 1849, when it was sold by Mr. Hill. Two years afterwards it reappeared in octavo form, at Manchester, where it was published until December, 1853, under the editorship of Chandler E. Potter.

All of the works above mentioned, with the exception of that of Sir Humphrey Davy, were simple records of personal experiences, or crude rules of agricultural practice founded upon careless observations. Agricultural science was not born in 1820, and the same may be said of many of the others upon which it has since been based.

Such were the literary advantages of an agricultural character to which the average New Hampshire farmer had access.† But of these he had little time or disposition to avail himself. This will be apparent upon a cursory glance at his general condition and surroundings.

His general education was that given him by the common school of his district, inadequately taught. This the children and youth of both sexes attended for a limited number of weeks each year until they had reached an age when their services were of value in the house or field.

His religious education was largely derived from the sermons delivered from the pulpits of the standing order, upon God's

*On the board of officers of this society in 1801, were some of the foremost men of Massachusetts. The board was constituted as follows: Hon. John Lowell, LL.D., president; Joseph Russell, Esq., first vice-president; Aaron Dexter, M. D., second vice-president; John Avery, Esq., recording secretary; Rev. J. T. Kirkland, corresponding secretary; Thomas L. Winthrop, Esq., treasurer; Fisher Ames, Esq., Martin Brimmer, Esq., Hon. George Cabot, Theodore Lyman, Esq., Rev. S. Parker, D. D., and John Warren, trustees. Four of its honorary members were residents of New Hampshire, viz.: Rev. Samuel McClintock, D. D., of Greenland; Benjamin Sumner, Esq., of Claremont; Benjamin West, Esq., of Charlestown; Dr. Samuel Tenney, of Exeter. — *Mass. Ag. Society Papers*, 1801.

† There should be added to the literary privileges mentioned in the text, that of listening to the annual addresses delivered at the county fairs by gentlemen who had some knowledge of public speaking but very little of farming.

sovereignty, man's fall with its consequences, the doctrine of election, so comforting to the elect, and other kindred topics, supplemented by periodical drills in the Assembly's Shorter Catechism.* To these were often added the instructions of the Sunday school recently established, and of the blessed mother at home, who tempered hers with human sympathy and love.

Upon leaving school, life began with him in earnest. He either lived and worked at home, in the expectation of eventually succeeding to the family domain, or, as was most frequently the case, he went to service for a time elsewhere, in the hope of gaining the means to buy a farm. In this effort he usually succeeded. Afterwards followed, ere long, the support of a family and parentage; and as responsibilities increased and hard labor began to diminish the elasticity of his muscles, and he saw distinctly the limitations of his situation, the lines of his face deepened and it took on an expression of care. He sobered, and realized that the life of the New Hampshire farmer must be one of continuous struggle with a rough climate and a hard soil, if he would gain a competency and a respectable position in life.

The farms of this period varied in size from fifty to five or six hundred acres. In the language of the day, they were "suitably divided into tillage, pasture, and woodland,"— a division indicating, and truly, a husbandry of mixed character. Upon every farm there was an orchard, and most of the fruit was converted into cider every autumn, and stored in the cellar for home consumption.

The ordinary New England farmhouse seventy years ago was a plain wooden structure some thirty or forty feet square, sometimes of two, but oftener of but one story high. A huge chimney, occupying the center, pierced the ridge of the two-sided roof, with a short, stubby top whose width and height were of about equal dimensions. This single chimney furnished one large and two good-sized fireplaces to as many rooms of the first floor, and two or three more to those of the second.

* The relation of church and state was maintained in New Hampshire until 1819, when by the enactment of the "toleration act," so called, it was abolished.

In 1853, the late Reuben K. Abbot, of Concord, remarked in the hearing of the writer, that he had known his father to put into his cellar, in a single autumn, sixty barrels of cider, all of which disappeared during the next twelve months; that, on occasions when the family had company, he had tapped a fresh barrel in the morning, and had to tap a second barrel by evening. In fact, cider was made to drink, and it was drunk.

Its windows, glazed with about two dozen panes of "seven by nine" glass, were uniformly unprotected by outside blinds. It was oftenest unpainted, so that in a few years its walls darkened in color and mellowed into harmony with the fields about it. But when painted, the popular colors were quite often cherry red for its clapboarded sides and snowy white for its casings and corner boards. Sometimes, in imitation of mahogany, its front door was made to look, by its unskilled grainer, as entirely unlike that wood as possible.

Within, the front half was divided into two rooms and an entry; the rear half into a long kitchen and an adjoining bedroom. The second story was divided in a manner very like the first, and was often reached by a staircase, between the front door and the chimney, of turnings so manifold that it was difficult to ascend it without tumbling down. The interior finish was for the most part plain, with some elaboration at times in some of the front rooms and upon the paneled partition walls. The living, working, eating, social room of this house was the large kitchen, lighted often by a single window and the conflagration generally in progress in the broad fireplace.*

As might be supposed, all the furnishings of such a house were uniformly plain, ministering little to pride and less to luxury. As the cooking-stove had not yet come, the open fireplace and brick oven supplied the heat required in culinary operations. If a seeming extravagance was noted anywhere, it was found in an occasional carpet of brilliant stripes, vying with the rainbow in colors, or in an eight-day clock equaling in value a fair yoke of oxen. But the former was of home production, both as regarded material and manufacture; and the latter was a necessity to those who rose before daylight and could not accurately guess the hour when the sun was below the horizon; nor, when the winter climate is remembered, can one call extravagant the feather beds of lofty heights underlaid by others of straw, whose positions were reversed as changes of temperature suggested. All the bed clothing upon these, both of wool and of flax, was the work of the housewife and her fair-armed daughters.

* The writer has in his possession an old kitchen hearth of granite which has been in constant use for one hundred and fifty-six years, and measures ten feet in length and two feet and six inches in width.

The living of the average farmer was plain but abundant. Beef and pork, dried pulse, potatoes and garden vegetables, supplemented by milk and bread, were the fundamentals on the daily menu. Pies, puddings, doughnuts, and cakes, in endless variety, furnished the dessert. All were of home production.

In the houses of all well-to-do farmers, wheels for the spinning of wool and flax were in frequent use, as well as hand looms for weaving the various cloths required by the family. A considerable portion of the premiums offered by the agricultural societies seventy years ago was for domestic manufactures. The clothing of both sexes was almost entirely homemade, fashioned, perhaps, by a peripatetic tailoress or dressmaker supposed to be versed in the styles of the day. The farmer raised his own skins, which were tanned by the village tanner, and made into boots and shoes quite often by a wandering shoemaker, who brought his kit to the house and shod the family once or twice a year. The shrill cry of the street gamin, "Shine, sir?" was not heard in 1820, and the farmer cared for his own boots, softening with grease the cowhides which he wore on weekdays, and imparting to the calfskins, which he wore on Sundays, a modest gloss with black-ball.

To any sufficient delineation of the dress of this period I am consciously unequal. The women's bonnets, gowns, pelisses were of easier comprehension than those of to-day, but a lack of accurate knowledge and technical language forbids any attempt to describe them. The swell male overcoat was more easily understood. It was a single-breasted sack of thick, drab homespun, reaching from the tips of the wearer's ears to his heels. Its standing collar, lined with velvet and fastened in front with a silver hook and rings; its immense buttons and the broad strap behind, to regulate varying corporeal change,—all served to give it a jaunty look. It required only a set of graded capes to render it a literal exemplification of perfection. It was good for more than one generation, and, unlike the owner's farm,* could be entailed to his remotest posterity, for whatever other qualities it may have enjoyed, the highest of all was indestructibility.

The lot of the farmer's wife was one of unremitting toil. She

* Entails were early prohibited in New Hampshire.

rose before the sun and retired some hours after his setting, when her work was done. She bore and reared the children. She boarded a good-sized family, part of which consisted of hard-working men whose appetites were voracious. She spun, wove, and made much of the family clothing. She washed, ironed, mended, and managed the dairy, besides oftentimes, in whole or in part, doing the milking. One cannot wonder if to her the most attractive heaven was one of "eternal rest." The most remarkable thing about her was that, notwithstanding this uninterrupted draft upon her mental and physical energies, she was hardy, generally had good health and attained to longevity.* She answered most remarkably to the pattern of the virtuous woman given us by Israel's wisest king, who tells us that "she seeketh wool and flax, and worketh willingly with her hands. . . She riseth also while it is yet night and giveth meat to her household, and a portion to her maidens. . . . She layeth her hands to the spindle, and her hands hold the distaff. . . . She is not afraid of the snow for her household; for all her household are clothed with scarlet."

The common implements of husbandry in 1820 were fewer and simpler than at present. As in the times of Hesiod and Virgil, these were mostly made upon the farm, and many of them by its owner.† They were rude, but they were strong. They did fair work and were durable. The plows were almost invariably of wood plated and shod with iron by the blacksmith who made the ox-chains, the heavy four-tined dungforks, and the

* Said to me, not long since, an old farmer who had known well the women of this time: "The women had big arms and were almost as strong as the men. In winter they dressed in woolen garments. You could not freeze a woman."

† In his "Works and Days," Hesiod thus instructs the Greek farmers how to make their plows: "Then, truly, bearing it in mind, fell a timely work, hew a mortar three feet in diameter and a pestle three cubits, and an axle-tree seven feet long, for, look you, it is very serviceable thus: but if you should cleave it eight feet, you might also cut from it a mallet. And hew a wheel three spans long for the plow carriage of ten palms' length. Many curved blocks of seasoned wood are at hand: but bring your plow-tail home, when you shall have found it, after search on mountain or in field, of ilex oak: for this is strongest for steers to plow: whensoever a servant of Minerva, having fastened it to the share-beam, has attached it with nails, and fitted it to the pole. But make two plows, toiling with them at home, one with plow-tail of one piece with the share-beam, the other compacted, for 'tis much better thus, if, look you, you should have broken one, you might place the other upon the oxen; and poles are soundest of bay or elm: but provide yourself a share-beam of oak, a plow-tail of ilex oak, and a pair of males, steers nine years old, (for the vigor of such is not weak) having the just mean of age, which are best for working."

two-tined pitchforks. All grass was mown by scythes and gathered into windrows by hand-rakes. Drag and horse rakes are inventions of a later date. The rifle was of wood and depended for its grit upon a coating of sand and tallow frequently applied. When the farmer had sufficient skill, he often made his own harrows, sleds, drags, and cart-bodies. He sometimes also made his cart-wheels; but these were more frequently the work of some neighbor skilled in their construction. They were ironed by the village blacksmith.*

The dasher or up-and-down churn was then in general use. This developed the muscles and severely tried the wind and patience of all who had anything to do with it. Butter and cheese, both for home use and for sale, were made upon every considerable farm. The cheese-room, with its darkened window, whose golden treasures were carefully examined and turned at stated intervals, and, like the kings of old, anointed, was the pride of the farmer's wife, and a due appreciation of its contents opened the most direct avenue to her good graces.

It is a mistake to suppose that the hard-working farmer, at the beginning of this century, was a man of no education because his school privileges had been meager and his life an isolated one. It is true that he read but sparingly, yet he carefully pondered and remembered what he read. The union of church and state then existing in New Hampshire secured to him each Sunday the ministrations of an intelligent clergyman and an opportunity to meet his fellow townsmen. His father, quite likely, had been a soldier in the Revolution and had told him over and over the story of our nation's birth; while his grandfather, who had served in the French and Indian war, had re-

Some seven hundred years later, Virgil speaks thus upon the same subject:

"But earlier yet, even in the forest, thou
Shalt choose a growing elm, and mightily bend
Till thou have shaped a plow-beam for thy plow:
The eight-foot pole fasten into its end,
The mould-boards twain set firm upon either side,
Where the stout beam the share-head doth divide.
And, sure, the linden light thou hast long since felled
For the yoke; and the lofty beech in its turn laid low
For the handle; so that, from behind propelled,
Thy rustic chariot may freely come and go."

— *Virgil's Georgics, Miss Preston's translation, Lib. I*, 169, 175.

* The felloes, some three inches wide, were ironed by tires applied in sections, as the blacksmith had then no means of bending and putting them on entire, as is now done.

hearsed to him the bitter struggles of the French and English for continental supremacy. He was elected highway surveyor of his district and a selectman of his town, from time to time, and occasionally represented the latter in the General Court. He was drawn to serve on juries and chosen as a referee to adjust disputes between parties. Furthermore, from early manhood to old age he was solving a problem as intricate as any proposed by the schools, that of extracting successfully from a reluctant soil the comfortable support of a dependent household. He was not a peasant like the inhabitants of Lower Canada. Had the American farmers in 1776 been such, the territory of the United States would have been a part of the English domain to-day. He was an American citizen who had mind and who thought.

It won't do to say that all education comes from the schools. These are important mainly as affording elementary mental discipline and elementary knowledge. The great life schools, which make men and women, are life's experiences, whose doors are opened to them in youth and closed only when they enter the narrow portals of the world to come.

This imperfect delineation of the condition of the New Hampshire farmer and his surroundings seventy years ago suffices to show in part why our first Board of Agriculture died after an existence of only four years. It died because it was born fifty years too soon. It died partly because the farmer was not ready to receive it, and partly because it had nothing to offer him worthy of his acceptance. It died mostly because the agricultural science necessary for its equipment did not then exist.

THE SECOND BOARD.

The present Board of Agriculture was incorporated by an act of the legislature, approved July 2, 1870, at the instigation, largely, of Moses Humphrey and James O. Adams. This provided :

1. That the Governor, with the advice of the Council, should appoint "ten practical and intelligent citizens, one from each county in the State, who shall constitute a board of agriculture and hold their offices for three years."

2. That after proper organization, the Board "shall investigate such subjects in relation to improvements in agriculture and kindred arts as they shall think proper; shall cause to be analyzed samples of such commercial fertilizers as may from time to time be offered for sale in this State; collect and distribute grain and other seeds; keep full records of their proceedings; and they may take, hold in trust for the State, and exercise control over donations made for promoting agricultural education and the general interests of husbandry."

3. That they shall solicit returns from the several agricultural societies of the State, and annually make to the Governor a report concerning such of these as may be important, together with "all their doings" and "such recommendations and suggestions as in their judgment the interests of agriculture require."

4. That this report shall be printed and disposed of as other state reports.

5. That while the members of the Board shall receive no compensation for their services, they shall be re-imbursed the necessary expenses incident to a discharge of their official duties, and the secretary shall be compensated for the work imposed upon him by the Board.

The original members of the Board were Moses Humphrey, of Concord; Thomas J. Whipple, of Laconia; James O. Adams, of Manchester; W. H. H. Mason, of Moultonborough; Sampson W. Buffum, of Winchester; Luther B. Hoskins, of Lyme; Charles Jones, of Milton; Joseph F. Lawrence, of Epping; Nathan R. Perkins, of Jefferson, and Edward H. Brown, of Croydon.

These, with the exception of Mr. Whipple, met at the council chamber, in Concord, on the 23d day of August, 1870, and organized their Board by the election of Moses Humphrey as chairman and James O. Adams as secretary.

Of these original ten members five are now living, but one only is still a member of the Board. Thus far it has had but one chairman, who is now present, as hearty aud hale, apparently, as when twenty years ago, at the age of nearly sixty-two, he began his official career. It is possible that he may be here again, two

decades hence, at the ripe age of one hundred and two, to guide the deliberations of the meeting to be holden in 1910.

Were our chairman not present, I might speak more freely and tell you that during the four score years and more of life which a kind Providence has vouchsafed to him, he has discharged honorably and honestly the many public duties which he has undertaken; whether as captain upon the quarter-deck of his vessel he plowed the seas, or as a New Hampshire farmer he plowed his land; whether as the manager of a manufacturing industry he sought a respectable competence, or as president of a horse-railroad he sought to accommodate his townsmen; whether in a trying period he served as mayor in his adopted city, or later as chairman of this Board. During this long period, his native character, fixed in youth, has never changed. It never will. It is too late now for Moses Humphrey to turn scamp. He could not if he would; he would not if he could.

Mr. James O. Adams, the first and only secretary of this Board for seventeen successive years, died at his post on the seventh day of February, 1887. He was born in Concord, and graduated at Dartmouth College in 1843. He was an early citizen of Manchester, and for many years was engaged in editorial work upon several of the newspapers of that city. From time to time his fellow citizens called him to the discharge of important public trusts; sometimes in connection with their schools, and sometimes as one of their representatives in the General Court. He had ever a decided love for farming, and for five years was the secretary of the New Hampshire Agricultural Society. Upon his election to the office of secretary of this Board, he surrendered to it his entire time, and soon afterwards removed to his farm in Boscawen, which he occupied until his death.

Mr. Adams brought to the discharge of his official duties personal qualities of great value. He possessed a good knowledge of practical farming, and had a fair acquaintance with agricultural science. He was a lucid and ready writer upon husbandry, as well as a clear and forcible speaker upon this subject. He was an amiable and even tempered man, patiently bearing and gradually overcoming the delays and perplexities incident to his work, particularly that of arranging, year after year, for some twenty or thirty meetings of the Board, in different sections of

the State all the way from Connecticut Lake to Massachusetts line, at which he was always present and ready, if required, to fill any vacancy which might arise from the absence of an expected speaker. He possessed, too, a genial humor and a fund of apt stories which often enlivened the monotonous winter journeyings of the Board's representatives to and from their meetings, and also served to enliven these assemblies when, as was often the case, a dull solemnity oppressed them. What singing is to a conference meeting, what the Marseillaise is to a company of Frenchmen, was one of Adams's pat stories, admirably told, on one of these occasions. He was skilled, also, in the preparation of the annual reports of the Board, of which fact the fifteen volumes which he edited bear ample testimony. His heart was ever in his work, and he died with his harness on, and almost, like the old Scotch laird, standing in his boots. A sudden stroke, a few unconscious hours, and then death, — these few words are the record of his life's close.

Mr. Nahum J. Bachelder, the present secretary, succeeded to the work relinquished by Mr. Adams, in April, 1887. I confidently leave to some future chronicler the record of his marked executive ability, and the high satisfaction which his services have thus far given to the Board and to the agricultural public.

Almost immediately after its organization the Board came together to consider and adopt a program of work. The fate of the former Board loomed up before them, — a specter as disagreeable, if not as frightful, as Banquo's ghost; but the question, Is this Board also to be a failure? was decided at once, and in the negative. "Fail?" said Cardinal Richelieu, "Fail? There is no such word in my vocabulary." Fortunately for the farmers of New Hampshire, the ten men who had taken in charge its interests were neither chickens nor cranks. They saw at once the possibilities of success and the conditions of its achievement. They relied upon implicit faith and hard work directed by an intelligent common sense. Their anticipations have been realized. The Board has lived twenty years, and no abatement of its natural force is yet visible.

In the interim between the death of the old and the birth of the new Board, great changes had taken place in the agricultural condition of the country. Most of the sciences upon which

farming rests had made vast strides onward, and a knowledge of their principles had been widely diffused. Liebig's Agricultural Chemistry, translated into English, had appeared in this country as early as 1842, and was soon after followed by that of James F. W. Johnston. Ere long, those admirable books of Professor Johnson of New Haven, entitled "How Crops Grow" and "How Crops Feed," were given to the public, the first in 1868, and the second in 1870. Many other works of a kindred character had also appeared.

During a part of this period the Massachusetts Board of Agriculture had been annually issuing a volume of its series of valuable reports, under the direction of its secretary, the late Charles L. Flint, as had also the Maine Board one of its series, ably edited by Mr. Samuel L. Goodale, then its secretary. The agricultural boards of other States outside of New England had been rendering a similar service; while at home the New Hampshire Agricultural Society, between 1850 and 1860, had issued ten volumes of "Transactions," some of which are unrivaled models of what an agricultural report should not be. Still, these, with the fairs of the society which they represented, did much to awaken an increased interest in the farming of the State.

Agricultural newspapers and magazines had also, during this time, done important work in this direction. Among those we must not forget the "Farmer's Monthly Visitor," established in this State in 1839 by Gov. Hill, who edited and published it until 1849, when he sold it, and it was subsequently conducted for two years by Chandler E. Potter. But this is no occasion on which to give in any detail the agricultural bibliography of this period of fifty years.

But along other, as well as along literary and scientific lines, had the farming of New Hampshire been progressing. The native cattle of the State had been improving under an infusion of a better blood into their veins. The mechanics of farming had also advanced, the wooden plow having retired before the better one of iron and steel, the hand rake having given place to the horse rake, and the scythe to the mowing-machine; while better implements of all kinds were gradually displacing their rude predecessors.

In 1862 the agricultural college was born, and, incredible as it

may seem, at Washington. It was not organized for work until 1868, about two years before this Board entered upon its career. To the first president of its faculty, Rev. Asa D. Smith, D. D., and to its first professor, Ezekiel Webster Dimond, the Board is indebted for sympathy and important aid at a time when these were sorely needed and highly valuable. To these noble friends of the agricultural cause, now passed to higher than earthly activities, a debt of lasting gratitude is due.*

As a result of these and of many other changes, agricultural dormancy was diminishing and an unrest which demanded progress was apparent. In a word, the condition of New Hampshire husbandry in 1820 as compared to that of 1870, was what daybreak is to morning. A glorious career was now evidently open to the new Board. Upon this it set out with energy and confidence, and it is not unreasonable, just here and now, to ask, What has it accomplished during its twenty years of life?

In answer to this question I will go back a little and say that the chief agency adopted by the Board at its very start was that of meetings, to be held in all parts of the State, at which agricultural addresses and papers should be presented, and followed by free discussions by any persons present. Nine such meetings, most or all of them of several sessions each, were held the first winter, and generally well attended. This plan of action, with slight modifications, is in use to-day. The designation of these gatherings has been changed from that of "meetings" to that of "institutes;" a distinction without much difference, but important, nevertheless, as showing an unwillingness to travel always in the ruts of predecessors rather than be at the trouble of cutting such new grooves as the new spirit of a new age demands.

Two or three of these have been held in each county every autumn or winter for the last twenty years. At almost all of them the secretary has been present, as well as more or less of the members of the Board. In addition to those who were officially present, there have ever been men in different sections of the State who have been ready to co-operate with the Board in its work, — a small band of agricultural laymen who loved husbandry and rejoiced in its progress.

* Prof. Dimond died July 6, 1876, and President Smith on the 16th of August, 1877.

As an example of a winter's work, twenty such institutes were held a year ago in different counties of the State, viz. : In Coös, three ; in Grafton, two ; in Carroll, two ; in Belknap, two ; in Merrimack, two ; in Hillsborough, two ; in Strafford, two ; in Rockingham, two ; in Sullivan, one ; in Cheshire, two.

Any one who has been conversant with these meetings must have noticed a gradual change in their character and in the demands of their audiences. For the first few years they were not only very practical but very elementary. The acquirements of the Board and of the hearers both necessitated this feature ; but they met existing wants, and gave the information sought. They did more ; they aroused in the minds of the farmers attending the man increased interest in their calling, and, often rifting o'erhanging clouds of despondency, let in life and hope.

Some of the early audiences were tediously if not painfully solemn. If, therefore, some nervous member of the Board now and then sought relief in a little pleasantry, let us hope that he has been forgiven. As an instance of such occasional offences, I recall an incident at a meeting held upon a very snowy afternoon in the dancing hall of a tavern, in one of our northern towns, in 1872. An audience as sober as the grave occupied the benches surrounding the hall, and listened patiently to an address, which was unlike eternity in that it had a beginning, but for a long time apparently like it, inasmuch as there was no prospect of its ever having an end. The speaker was an honorable councilor, whose party had recently gained political ascendency in the State, and whose executive, in a too hasty distribution of the offices in its gift, had appointed a fish commissioner when there was no vacancy in that board, to the very great annoyance of its political friends and to the great amusement of its political opponents.

To secure, as far as possible, this latter quality of endless duration to the honorable councilor's address, a member of the Board from one of the lower counties suggested to a colleague, and also to a lay brother who chanced to be present, that it might be well to keep his honor talking all the afternoon. When, at length, the address had apparently reached its end, the originator of this proposition arose and asked a question relative to the subject under consideration, which started the speaker anew. As he reached his second close, the colleague followed his associate's

example, as did, later, the lay brother just mentioned, with like results in both cases. Thus far the meeting had had no less than four respectable speeches from the orator, which any reasonable person would have deemed enough to inflict upon an unoffending audience. But the original interrogator, flushed with increased interest in the important subject before the meeting, arose again, and begging leave to ask one more question, which should be the last with which he would trouble the speaker, very naïvely inquired, with some concern, "if, before draining the meadow of which he had been speaking, whose depressions before drainage were filled with water in which shoals of hornpouts sported, it would not have been wise to have consulted the fish commissioners?" The shout which followed drowned the councilor's reply, and awoke Mr. Chairman Humphrey to his responsibility as guardian of the peace and dignity of the State, and he immediately ordered the discussion closed.

The great dramatist has said that —

> "There was never yet philosopher
> That could endure the toothache patiently."

It must not surprise you, therefore, to learn that the next day the honorable councilor very trenchantly remarked, "The devil will get that down-country fellow by and by. If he don't he is good for nothing, and there is no use in having a devil."

In answer to the question previously suggested as to what the Board has done during this long period of twenty years, I will remark that were the Board a benevolent society, and I its peripatetic agent seeking shekels for its treasury, I might tell you the number of miles its members have traveled up and down the State, the number of cubic feet of precious breath they have expended upon their audiences, the number of pages of valuable printed matter they have distributed for the agricultural enlightenment of the farmers of New Hampshire, and present to you many other statistics equally comprehensible and important. But I am not such an agent, and I don't want your money; so I must answer the query in a different way.

The work of the New Hampshire Board of Agriculture has proceeded *pari passu*, and on lines parallel with other agricultural agencies, and the results attained are to some extent those of

conjoined efforts. Just how many of these are due to the Board only, it would be invidious, if it were possible, to say.

1. But the Board has been instrumental of much good. Never having been a member of it, I can speak freely and say that it has awakened an increased interest in their calling among the farmers of the State. Twenty years ago, thousands of them were indifferent to progressive husbandry. They lived in a persistent violation of the laws governing the production of profitable crops, and were dead in agricultural trespasses and sins. Some of these have since been awakened, and here and there a mild work of farming grace has progressed among them. Some, I doubt not, who have been saved, owe their salvation in part to these apostles of the gospel of agriculture.

2. The seventeen volumes of reports which the Board has distributed throughout the State give much practical and scientific information upon subjects of vital importance to our farmers. From these might be collated a valuable treatise upon New Hampshire husbandry. They contain monographs upon soils, culture, cereals, roots, grasses, cattle, sheep, horses, dairying and other kindred subjects. These, of little cost to the State, are mostly a present to its farmers from the Board appointed to serve them.

3. In part at least, through the efforts of this Board, the farming of the State has been raised to a higher plane than any it has ever reached before. In 1870 a yoke of seven-foot oxen was too large to keep, and must be sold. At that time there were hardly any pure-bred animals in the State, and when, as sometimes happened, a few were entered at a state or county fair, it was difficult to find a committee competent to pass intelligent judgment upon them. But it is otherwise now, as any person who has exhibited such at one of Mr. Secretary Bachelder's grange fairs has found to his lasting satisfaction. Fifty bushels of well-dried shelled corn to the acre is no longer an unusual crop. Neither are two tons of well-made hay, or even more, on the same area, unusual. Intelligent fertilization and intelligent feeding are becoming common practices. Dairying is now almost an exact science. The most economical manipulations of soils and the use of farm machinery are becoming a general study, and progressive farming has become as attractive to sen-

sible farmers as has progressive euchre to young ladies and gentlemen who have nothing to do. Furthermore, in these twenty years of the Board's life the New Hampshire farmer has made the greatest discovery he has ever made or ever will, — he has discovered that he is somebody; and henceforth, instead of acting as a tail to some other man's kite, he proposes to fly one of his own.

4. The Board has always been glad to extend the right hand of good-fellowship to other organizations working on lines parallel to its own. In its day of small things it was cheered on its untried way by the Agricultural College, and has never forgotten the kindness. In the success of that institution it always has and always will rejoice. To the various agricultural societies, too, so far as it could, it has lent a helping hand. To the grand column of agricultural progress it has rejoiced to welcome the great band of the Patrons of Husbandry, and with them to walk shoulder to shoulder, keeping step to their music. To the new organization which has recently hung out its banner in our sky, it extends a farmer's welcome. The Board expects great things of it, and if it don't solve some of the agricultural riddles which have so long perplexed us, will reluctantly say of it as did the honorable councilor, before mentioned, of his too inquisitive friend, "There is no use in having an experiment station."

The tramping ground of the Board extends from Massachusetts line to Indian Stream, and from the Connecticut to the sea. To a person not conversant with its work a recital of some of the Board's experiences would be entertaining, to say the least.*

*Owing to the season of its work, some of the journeyings of the Board, 'mid cold, and rain, and snow, and ice, are not altogether tours of pleasure. It was the speaker's fortune to accompany Mr. Adams, in 1887, on the last round of meetings he ever attended in Coös county. The Board was represented by him and by the member for that county. The journey began at Concord, on the fifteenth day of November. After the days' ride, the first meeting was held in the Methodist church at Groveton, with a fair attendance.

The next morning, after a conference as to whether to proceed on wheels or on runners, as the snow was thin, the latter was chosen. The second meeting was holden that (Tuesday) afternoon in the town-house at Stark. From this the party drove to West Milan, arriving in season for their third meeting in the evening, in the schoolhouse. A bright little meeting it was, whose interest was increased by a display of farm products by an enterprising citizen of the town. Peas, oats, honey, and chickens made a part, at least, of this list. On this occasion one of the speakers was saved from hearty ridicule by a coop of chickens, very much as old Rome is said to have been saved from capture by a flock of geese.

To illustrate a point of his subject he had drawn upon the blackboard a kernel of corn Just as he had finished it a little gamin whispered to his seat-mate, but so loud as to be generally heard, "That looks more like a balloon than it does like a kernel of corn." To this

As has been before intimated, one of the disheartening obstacles sometimes encountered has been the solemnity of an audience, for, unless he is unusually wicked, no man can preach his best at a funeral. The first secretary, Mr. Adams, had an unusual gift at dispelling such gloom. The same was true of a member representing one of the southern counties. Both of these gentlemen had ruddy countenances. Of the latter's success an instance just here comes to my remembrance. It occurred at a meeting at a town on the Connecticut, at a time while the secretary, Mr. Adams, was temporarily absent addressing a similar meeting of the Vermont board, a few miles away on the opposite side of the river. The member just alluded to, at the close of an animated address and with a face as red as crimson, had just taken his seat when a very sedate man arose and said, mistaking the speaker for Mr. Adams, "I would like to ask Mr. Adams a question." Instantaneously, and anticipating the question, the member replied, "I cannot consent, sir, to be called Mr. Adams· Mr. Adams is a red-faced man, and for your mistake you owe me an apology." "I see — I see I have done wrong," slowly replied the interrogator; "I ought and am willing to apologize,

quite true remark of the boy the meeting gave assent, and the draughtsman would have been in lasting disgrace but for a coop of chickens with instincts superior to the general judgment who began to chirrup their mistake of this semblance for the reality.

The objective point of the third day was the Willis schoolhouse, near the east bank of the Androscoggin, in the southeast part of Dummer. In the morning the party had just time enough to accept an invitation of the exhibitor of the evening before to visit him at his "logging camp," as he termed it. A ride of three miles, partly through woods and beside a foaming stream, brought the party to a long, one-story-and-a-half house, surrounded by a miscellaneous collection of buildings, consisting of barns, sheds, shops, an icehouse, apiary, and, very likely, others not now recalled. It was a little off the highway, and was approached by a private avenue. In front of the house was a row of lilacs and beyond these an orchard. In the hennery was a fine collection of blooded fowls, and in the barns a herd of Jerseys. The house and its surroundings reminded one of an old-time plantation establishment in the sunny South.

The snow fell fast when the party arrived, and they were glad to enter the doorway of this hospitable looking "lumberman's camp." An invited guest cannot, of course, parade in public the sanctities of a private home. But he may, perhaps, with propriety say that the blazing open fire, the well-furnished parlor adorned with pictures and bric-a-brac, the pianoforte and its music, the library and its books, a luxurious breakfast, and, above all, the hearty welcome and pleasant converse of a cultured family, will never be forgotten.

But the appointment of the evening forced the party into the storm again and to a tedious ride, first down and then up the Androscoggin on the opposite side, to the place of meeting Any person who believes that all the brains of New Hampshire are confined to Dartmouth College and to the lower towns of the State would have lost that delusion had he attended that little meeting in the Willis schoolhouse.

The next morning (Thursday) the party headed early, in a heavy rain, for Errol Bridge, to meet an appointment for the afternoon. Crossing the Androscoggin on the treacherous ice,

but my apology must be made to Mr. Adams." This little incident shortened the faces of the audience and awakened the meeting to renewed interest in the matters under consideration.

This very imperfect sketch may, perhaps, convey to your minds some knowledge of the past work of the New Hampshire Board of Agriculture. It amounts in substance to this: Twenty years of pretty active life; two or three meetings of several sessions each, each fall and winter, in every county of the State; an annual gathering of their proceedings into a volume for distribution throughout the State; the discharge of such other duties as varying times and localities may have suggested. I am not here to propose alterations in any of the Board's methods, but I may perhaps be allowed on this occasion and at this chief agricultural center, to suggest a consideration of the propriety of gathering into the reports of the Board fuller accounts of the work of the co-ordinate organizations which have in view the same great end, and of publishing these semi-annually or quarterly. It has been the effort of this Board to furnish to the cultivators of the soil, as far as it could, specific information important in the successful prosecution of their business, and to awaken increased interest in its progress and success.

Land, mere land, is *per se* of no value. It is valuable only as it is productive. The Indian sold a township for a few trinkets, and these were a fair measure of its value to him. Its purchasers applied skill and enterprise to the development of its resources and thereby enhanced its value many thousand times.

it plunged into the woods, — monotonous, somber, lonely. For fourteen miles not a human habitation was passed, the river being its only companion and its guide. The meeting of the afternoon was held, as well as another in the evening, four miles away.

Friday morning brought no rain, but indications of snow. A meeting had been called at Stratford Hollow, thirty-eight miles away, through Dixville and Colebrook. The storm king, which had faithfully attended upon the party's movements during much of the week disputed its passage of the notch and brought on a snow storm just as it reached the western entrance, where bare ground soon compelled the relinquishment of their sleigh for a wagon. The afternoon brought a continuous struggle between human endurance and a blinding Coös storm of wind and snow. The latter finally won. At the hour of the meeting North Stratford only had been reached, seven miles short of the place appointed. All thought of farther progress was abandoned. There the tired travelers found a good supper and good beds, and one of them a choice room near to the dancing hall, where the shuffling of feet and the blare of a harsh orchestra rendered night hideous and sleep impossible. At three o'clock in the afternoon of the following day the train pulled into the Concord Railroad station, and this week's chapter of the acts of the New Hampshire apostles of agriculture passed from action into history.

The value of land, therefore, is fixed by the capacity of its owner. More than one third of the entire area of New Hampshire, over and above that devoted to forests, is used for husbandry. If the worth of this two millions and a quarter of acres, as just stated, is dependent upon the quality of the brains of its occupants, anything which the State can do to improve these it had best do, for it thereby augments the value of its domain. In short, high agricultural capacity has a cash value. Even if it be not apparent on the state treasurer's trial balance, it is there.

The Board has lived twenty years. It is not the purpose of this paper to forecast its future. This the coming decades must determine. Whenever it shall have fully served its purpose it will doubtless die. So long as it remains an active power for good it will live, and I bespeak for it the support of all whose interests it was founded to promote.

In 1850, not long after his celebrated Seventh of March speech, I had the honor, with a company of my townsmen, of dining with the Honorable Daniel Webster, on his farm at Franklin. In allusion to the recent alienation of many of his old friends which this speech had produced, he remarked, "Whatever they may do to me hereafter, they cannot deprive me of a pretty long and pretty happy life." So of this Board may we say, whatever may betide it in the future, nothing can ever deprive it of a fairly long and fairly successful life. This it has already secured.